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DIVISION OF ENVIRONMENTAL QUALITY SWIRO

MEMORANDUM

Date: November 30, 1992

To: John Anderson - Nampa-Meridian Irrigation District
Dave Durrett - Walla Walla Shopping Center Associates
Ron Lane Sally ~~Goodell~~ - DEQ Community Programs
Gary Himes - White Leasure Company
Craig Shepard - DEQ Southwest Idaho Regional Office
Robert Wilkosz - DEQ Permits and Enforcement

From: Bradley Harr and Dana Brennan, Special Resource Management, Inc. B. Harr D. Brennan

Subject: Westpark groundwater remediation report for the first quarter of the air stripper's third year of operation.

The purpose of this memorandum is to provide an update of the air stripper's second year of operation and status of the Westpark groundwater remediation program. Information concerning the volume of water treated, treatment system efficiency, monitoring results, PCE air emissions, and quality assurance is presented. This report includes a first quarter - third year operation overview of data collected from March 1992 through May 1992. Quarterly monitoring results were previously submitted on June 22, 1992 (first quarter results).

FIRST QUARTER - THIRD YEAR STATUS REPORT (March 1992 to May 1992)

VOLUME OF GROUNDWATER TREATED

The total volume of contaminated groundwater treated through May 21, 1992 was 238,226,500 gallons. The volume of groundwater treated in the first quarter of the third year was approximately 29,466,600 gallons. This is equivalent to 12.4% of the total volume treated through May 21, 1992. Of the total volume, 76,106,520 gallons (31.9%) were treated from well WP-1; 101,193,580 gallons (42.3%) were treated from well WP-2; and 60,925,200 (25.6%) were treated from well WP-3. A summary table (Table A-1) of the cumulated volume of treated groundwater from each of the remediation wells and the total combined treated volume is presented in Appendix A. Table A-2 (2nd Operating Year Overview and Monthly Summary) summarizes approximate volume of water treated each month (first of the month to end of the month); repairs and adjustments; and report dates addressing operation, repairs, and adjustments. The data presented is estimated from flow meter readings taken during routine inspections of the air stripper.

GROUNDWATER MONITORING AND GAUGING

SRM performed quarterly groundwater monitoring of the Westpark wells as outlined in the Westpark Consent Order. The first quarter - third year sampling was conducted May 21, 1992. Because SRM received verbal authorization from DEQ on February 26, 1992 to limit sampling of wells 11, 19, and 20R to an annual sampling event in August, groundwater samples were only collected from monitoring wells 9, 16, 18, and 21, and pumping wells WP1, WP2, and WP3. Samples were also collected from the combined influent (WP123I) and the combined effluent (WP123E). A duplicate sample was taken from well 21. An equipment blank and a travel blank were also analyzed for purposes of Quality Assurance/Quality Control (QA/QC). All samples were analyzed for PCE and TCE by Analytical Laboratories of Boise, Idaho, utilizing protocol established in EPA method 601-602.

The analysis results for the May 1992 sampling were previously provided by SRM to appropriate individuals on June 22, 1992; however, a data validation report and chain of custody records for samples collected this quarter are included in Appendix B. Appendix C includes a summary of past quarterly sampling PCE results for each well sampled (Table C-1), and a representation of the PCE levels in pumping wells WP1, WP2, and WP3 with regard to seasonal trends in PCE levels (Figure C-1).

The May 1992 analysis results for the Westpark monitoring and pumping wells is summarized in the following table:

ID	DATE	PCE (ppb)	TCE (ppb)
MW-9	05/21/92	190.0	0.9
MW-16	05/21/92	100.0	0.8
MW-18	05/21/92	17.0	<0.5
MW-21	05/21/92	310.0	1.3
WP1	05/21/92	580.0	2.3
WP2	05/21/92	600.0	2.4
WP3	05/21/92	860.0	3.8
EB	05/21/92	<0.5	<0.5
TB	05/21/92	<0.5	<0.5

Groundwater elevations were also gauged during the May 21, 1992 sampling event. The results of groundwater elevation gauging are presented in Appendix C, Table C-2. Map C-1, May 1992 is a location map and includes PCE concentrations for each well. Map C-2, May 1992 depicts the groundwater elevations calculated for the May 1992 sampling event.

PCE AIR EMISSIONS AND AIR PERMIT REPORTING REQUIREMENTS

The Permit to Construct an Air Pollution Emitting Source requires SRM to report monitoring results to the Idaho Air Quality Bureau. The monitoring reports are to include:

(a) flow rates from each of the remediation wells and the air stripper discharge
(b) PERC content from each of the remediation wells and the discharge, expressed in both pph and ppm
(c) PERC emissions to the atmosphere expressed in both pph and ppm
(d) a cumulative graph of the air stripper operation which depicts PERC emissions to the atmosphere vs. time

Flow Rates

Flow rates, PCE levels, and PCE emissions for each of the pumping wells and the influent and effluent (as required in Section 5.3a of the permit) are summarized in Appendix D, Tables D-1 through D-5. Table F-1 summarizes the week of operation flow rates for the pumping wells and combined influent/effluent since August 16, 1991. Figure F-1 in Appendix F illustrates the effluent flow rates since the start-up date.

The air stripper operated at a quarterly average rate of approximately 230 gallons per minute for this quarter. This flow rate results in about 360,000 gallons being treated every day. SRM noted a significant decrease in the pumping rate of WP2 during this quarter. The well did not appear to be producing enough water to maintain the historical pumping rate. Flow rates were manually reduced in WP2 to prevent air being pumped through the pump and to prevent overheating. SRM concluded that silt content of the gravels adjacent WP2's well screen increased, leading to a possible packed gravel condition around the well screen or possible pump efficiency problems. Either condition could have been reducing the well yield. Section "AIR STRIPPER EFFICIENCY AND MAINTENANCE" explains corrective action taken to improve the efficiency of WP2.

PCE Concentrations in Pumping Wells

Tables D-1 through D-3 summarize pumping rates and PCE values for each of the pumping wells. The May 1992 pumping well sampling results in parts per billion are as follows:

WELL #	AVG. GPM	PCE	TCE
WP-1	84.5	580.0	2.3
WP-2	65.3	600.0	2.4
WP-3	80.1	860.0	3.8

Overall, the May 1992 PCE concentrations for each of the pumping wells is higher than the February 1992 concentrations. The monitoring conducted to date indicates that there may be seasonal variations in site PCE concentrations; however, a clear trend has not been established.

PCE Emissions to the Atmosphere

PCE emissions to the atmosphere are calculated and reported in Appendix E, Table E-1. The permit limits PCE emissions to less than 0.25 pounds per hour (pph). This requirement has been met for all sampling events since system startup. The May 1992 emission rate has been estimated as 0.0523 pph. This rate is 20.9% of the allowable emission rate.

AIR STRIPPER EFFICIENCY AND MAINTENANCE

Flow rates have been consistently at or near 230 gpm for the first quarter of the third year. The overall flow rate reduction is partially due to the dramatic decrease of groundwater yields from well WP2. SRM determined that redevelopment and maintenance of well WP2 was necessary to re-establish appropriate pumping levels. The redevelopment was conducted between April 13 and 29, 1992. During that time, SRM inspected and bench tested the pump and motor, and both were found to be within manufacturer's specifications. One problem SRM encountered during redevelopment of the well was the booster pump relay of the recovery system had shorted. SRM replaced the relay and normal operation was restored. Once well redevelopment was complete and the booster pump relay was replaced, flow rates in WP2 returned to appropriate levels.

Other maintenance to the system during this quarter were minor fan adjustments and an attempt to remove the surface scale on the air stripper with dilute hydrochloric acid. The acid was found to be ineffective in removing the surface scale and SRM decided to experiment with dilute concentrations of sulfuric or phosphoric acid in the future.

In summary, the air stripper operated fairly efficiently during the first quarter of the third operating year. Treatment volume was down slightly, due to WP2 inefficiency and repairs. The analysis results show a reduction of PCE influent concentrations of 420 ppb to PCE effluent concentrations of 3.7 ppb. The 3.7 ppb effluent concentration is well below the 10 ppb limit established for the treatment system in the Consent Order. The reduction of PCE levels from the influent to the effluent constitutes a removal of 99.1%. The percent PCE removal obtained during the May 1992 sampling event indicates that the air stripper has continued to be effective

APPENDIX A

TABLE A-1
ESTIMATED VOLUME OF TREATED GROUNDWATER
(Volumes given in thousands of gallons)

DATE	WEEK #	WP-1 PERIOD	WP-1 CUM.	WP-2 PERIOD	WP-2 CUM.	WP-3 PERIOD	WP-3 CUM.	PERIOD TOTAL	CUM. TOTAL
2-08-91	49	803.70	22,219.80	1,122.20	50,358.70	779.80	10,815.30	2,706.00	83,394.00
2-15-91	50	283.27	22,503.07	1,187.04	51,545.74	890.28	11,705.58	2,360.60	85,754.60
2-22-91	51	726.12	23,229.19	1,141.05	52,686.79	726.12	12,431.70	2,593.30	88,347.90
3-07-91	52	859.20	24,088.39	966.60	53,653.39	859.20	13,290.90	2,685.00	91,032.90
3-15-91	53	974.35	25,062.74	1,079.28	54,732.67	944.37	14,235.27	2,998.00	94,030.90
3-21-91	54	799.80	25,862.54	859.93	55,592.60	745.67	14,980.94	2,405.40	96,436.30
3-28-91	55	901.70	26,764.24	948.45	56,541.05	821.55	15,802.49	2,671.70	99,108.00
4-05-91	56	1,046.76	27,811.00	1,126.06	57,667.11	998.18	16,800.67	3,172.00	102,280.00
4-11-91	57	486.46	28,297.46	531.36	58,198.47	478.98	17,279.65	1,496.80	103,776.80
4-18-91	58	1,103.22	29,400.68	1,186.80	59,385.27	1,053.08	18,332.73	3,343.10	107,119.90
4-25-91	59	890.18	30,290.86	944.12	60,329.39	863.20	19,195.93	2,697.50	109,817.40
5-02-91	60	781.18	31,072.04	792.67	61,122.06	723.74	19,919.67	2,297.60	112,115.00
5-09-91	61	1,024.91	32,096.95	1,087.03	62,209.09	993.86	20,913.53	3,105.80	115,220.80
5-15-91	62	905.83	33,002.78	905.83	63,114.92	852.54	21,766.07	2,664.20	117,885.00
5-21-91	63	649.28	33,652.06	688.63	63,803.55	629.60	22,395.67	1,967.50	119,852.50
5-30-91	64	1,172.66	34,824.72	1,207.15	65,010.70	1,069.19	23,464.86	3,449.00	123,301.50
6-12-91	66	996.86	35,821.58	1,152.62	66,163.32	965.71	24,430.57	3,115.20	126,416.70
6-19-91	67	923.58	36,745.16	977.90	67,141.22	814.92	25,245.49	2,716.40	129,133.10
6-26-91	68	888.89	37,634.05	969.70	68,110.92	835.02	26,080.51	2,693.60	131,826.70
7-11-91	70	1,146.75	38,780.80	1,325.93	69,436.85	1,110.92	27,191.43	3,583.60	135,410.30
7-18-91	71	374.91	39,155.71	409.00	69,845.85	352.19	27,543.62	1,136.10	136,546.40
7-26-91	72	1,016.93	40,172.64	1,119.65	70,965.50	945.02	28,488.64	3,081.60	139,628.00
8-02-91	73	403.92	40,576.56	427.68	71,393.18	356.40	28,845.04	1,188.00	140,816.00
8-07-91	74	665.79	41,242.35	718.53	72,111.71	593.28	29,438.32	1,977.60	142,793.60

TABLE A-1
ESTIMATED VOLUME OF TREATED GROUNDWATER
(Volumes given in thousands of gallons)

DATE	WEEK #	WP-1 PERIOD	WP-1 CUM.	WP-2 PERIOD	WP-2 CUM.	WP-3 PERIOD	WP-3 CUM.	PERIOD TOTAL	CUM. TOTAL
8-16-91	75	1,009.77	42,252.12	1,069.16	73,180.87	890.97	30,329.29	2,969.90	145,763.50
8-21-91	76	639.85	42,891.97	677.48	73,858.35	564.57	30,893.86	1,881.90	147,645.40
8-29-91	77	1,043.19	43,935.16	1,105.47	74,963.82	965.34	31,859.20	3,114.00	150,759.40
9-06-91	78	994.74	44,929.90	1,053.25	76,017.07	877.71	32,736.91	2,925.70	153,685.10
9-13-91	79	881.49	45,811.39	947.27	76,964.34	802.55	33,539.46	2,631.30	156,316.40
9-17-91	80	500.58	46,311.97	515.31	77,479.65	456.41	33,995.87	1,472.30	157,788.70
9-26-91	81	1,152.23	47,464.20	1,185.63	78,665.28	1,001.94	34,997.81	3,339.80	161,128.50
10-05-91	82	1,007.96	48,472.16	1,037.61	79,702.89	919.03	35,916.84	2,964.60	164,093.10
10-10-91	83	752.58	49,224.74	763.49	80,466.38	665.33	36,582.17	2,181.40	166,274.50
10-18-91	94	1,011.19	50,235.93	1,011.19	81,477.57	866.73	37,448.90	2,889.10	169,163.60
10-25-91	85	887.67	51,123.60	887.67	82,365.24	760.86	38,209.76	2,536.20	171,699.80
10-31-91	86	727.06	51,850.66	748.44	83,113.68	662.90	38,872.66	2,138.40	173,838.20
11-07-91	87	864.26	52,714.92	876.78	83,990.46	764.06	39,636.72	2,505.10	176,343.30
11-14-91	88	757.75	53,472.67	725.73	84,716.19	651.02	40,287.74	2,134.50	178,477.80
11-22-91	89	1,126.69	54,599.36	1,094.49	85,810.68	997.92	41,285.66	3,219.10	181,696.90
12-04-91	91	1,195.81	55,795.17	1,195.81	87,006.49	1,024.98	42,310.64	3,416.60	185,113.50
12-19-91	93	2,038.44	57,833.61	1,818.07	88,824.56	1,652.79	43,963.43	5,509.30	190,622.80
12-30-91	95	1,351.64	59,185.25	777.19	89,601.75	1,250.27	45,213.70	3,379.10	194,001.90
01-09-92	96	1,332.20	60,517.45	732.71	90,334.46	1,265.59	46,479.29	3,330.50	197,332.40
01-17-92	97	607.32	61,124.77	349.21	90,683.67	561.77	47,041.06	1,518.30	198,850.70
01-24-92	98	883.62	62,008.39	543.77	91,227.44	838.31	47,879.37	2,265.70	201,116.40
01-29-92	99	682.34	62,690.73	402.41	91,629.85	664.85	48,544.22	1,749.60	202,866.00
02-05-92	100	918.40	63,609.13	505.12	92,134.97	872.48	49,416.70	2,296.00	205,162.00
02-14-92	101	1,145.92	64,755.05	630.26	92,765.23	1,088.62	50,505.32	2,864.80	208,026.80
02-26-92	103	1,408.84	66,163.89	810.08	93,575.31	1,303.18	51,808.50	3,522.10	211,548.90

TABLE A-1 (continued)
ESTIMATED VOLUME OF TREATED GROUNDWATER
(Volumes given in thousands of gallons)

DATE	WEEK #	WP-1 PERIOD	WP-1 CUM.	WP-2 PERIOD	WP-2 CUM.	WP-3 PERIOD	WP-3 CUM.	PERIOD TOTAL	CUM. TOTAL
03-09-92	105	1,520.48	67,684.37	874.28	94,449.59	1,406.44	53,214.94	3,801.20	215,350.10
04-06-92	109	3,581.02	71,265.39	1,834.18	96,283.77	3,319.00	56,533.94	8,734.20	224,084.30
04-10-92	109	471.59	71,736.98	253.93	96,537.70	483.68	57,017.62	1,209.20	225,293.50
04-22-92	111	913.41	72,650.39	996.44	97,534.14	858.05	57,875.67	2,767.90	228,061.40
05-11-92	114	2,194.70	74,845.09	2,323.80	99,857.94	1,936.50	59,812.17	6,455.00	234,516.40
05-21-92	115	1,261.43	76,106.52	1,335.64	101,193.58	1,113.03	60,925.20	3,710.10	238,226.50

TABLE A-2

3RD OPERATING YEAR OVERVIEW AND MONTHLY SUMMARY

MONTH OF OPERATION	APPROX. VOLUME TREATE PER MONTH (gallons)	REPAIRS - ADJUSTMENTS - COMMENTS	REPORT DATES ADDRESSING OPERATIONS & ADJUSTMENTS
1ST QUARTER			
MARCH 1992	12,535,400	N/A	
APRIL 1992	3,977,100	Redevelopment and maintenance of WP2.	May 6, 1992
MAY 1992	12,954,100	Stripper shut down on May 28 for fan adjustment. Attempted to clean scale off stripper with muratic acid.	November 30, 1992
		First quarter sample event for the third year of operation.	November 30, 1992
TOTAL VOLUME (As of May 26, 1992)	**211,548,900**		

APPENDIX B

DATA VALIDATION AND QUALITY ASSURANCE - MAY 1992

A data validation report is provided in order to evaluate the data obtained against a pre-established set of criteria to assure that the data are adequate for their intended use. The reliability of monitoring and measurement data is assessed and quality improvements efforts can be conducted accordingly. The following subsections address the data validation criteria and results for the May 1992 samples collected for the Westpark Groundwater Remediation Project. This validation encompasses results for nine water samples, one duplicate water sample, one field equipment blank, and one travel blank. The following issues are discussed:

- Data Completeness
- Holding Time
- Surrogate Spike Recoveries
- Matrix Spike Results (batch only)
- Blank Analysis Results
- Assessment of Laboratory Precision
- Sample Detection Limits

The results of the evaluation are presented below.

· Data Completeness

Twelve samples were submitted to Analytical Laboratories of Idaho. Pumping well, monitoring well, and field quality control samples (duplicate, equipment blank, and travel blank) were analyzed for PCE and TCE. Valid data completeness was 100% for this event. This exceeds the 95% completeness requirement as set by this project. Review of laboratory data sheets and chain of custody forms indicate that all sample bottles were received in good condition.

· Holding Time

Contractual holding time between sample collection and analysis is 14 days for PCE. All of the samples were analyzed within 13 days of collection, meeting the holding time criteria.

· Surrogate Spike Results

Surrogate spike results were reviewed and evaluated. The surrogates used were fluorobenzene and 1-chloro-2-bromopropane. Surrogate spike results ranged from 97.6% to 103% for fluorobenzene, and 93.7% to 107% for 1-chloro-2-bromopropane. The percent recovery for these spikes must be within the 80%-120% control limits. All results were within this range.

- **Matrix Spike Results**

One matrix spike result for the entire batch of samples was reported by the lab. The matrix spike percent recovery fell between 94.1% and 108%. This is acceptable according to the Method 601-602 control limit of 80-120%.

- **Blank Analysis Results**

One equipment blank and one travel blank were used in this sampling event. The results were negative (<0.5). This indicates that no contamination of samples occurred from the sampling equipment or during transport to the laboratory.

- **Assessment of Laboratory Precision**

Duplicate samples are submitted to the laboratory to provide a measure for field procedure and laboratory analysis variability. One duplicate sample (21-WP4) was submitted for monitoring well 21 The calculated relative percent difference (RPD) between the original and the duplicate was 10.1% for PCE and 0% for TCE. This data is very reasonable and show good laboratory precision.

- **Sample Detection Limits**

The detection limit for PCE, as set by Method 601-602, is 0.5 ug/L. This is the target limit established for and obtained by the laboratory. The Westpark groundwater is free of compounds that interfere with Method 601-602 and there is little problem maintaining a detection limit of 0.5 ug/L.

- **Conclusion**

Evaluation of the May 1992 quarterly monitoring data indicates that all data is in accordance with the requirements established for this project. None of the remaining data for this project shall be rejected. Any data that is of some question, based on the QA/QC project criteria, will be flagged and an explanation of the concern will be provided.

CHAIN OF CUSTODY RECORD

DATE 5/21/92 PAGE 1 OF _____

Special Resource Management, Inc.
200 N. 4th St., Suite 206
Boise, ID 83702
208-345-3667 (24 Hr.)
800-654-2504 (In Idaho)

LABORATORY: Analytical Laboratories
ADDRESS: 1604 N. 33rd
Boise, ID 83703
ATTENTION: Dave Bennett
PROJECT NAME: Westpark
JOB/P.O. NO.: 21.01490.001
SAMPLE MANAGER (SIGNATURE): Dana L. Williams

SAMPLE NO.	DATE	TIME	SAMPLER	LOCATION	TESTING PARAMETERS	NO. OF CONTAINERS	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
21-18	5/21/92		B/W	1781	✓ ✓	3	
21-21	5/21/92		B/W	782	✓ ✓	3	
21-16	5/21/92		B/W	783	✓ ✓	3	
21-WP1	5/21/92		B/W	784	✓ ✓	3	
21-WP2	5/21/92		B/W	785	✓ ✓	3	
21-WP3	5/21/92		B/W	786	✓ ✓	3	
21-9	5/21/92		B/W	787	✓ ✓	3	
21-WP4	5/21/92		B/W	788	✓ ✓	3	
21-WP123I	5/21/92		B/W	789	✓ ✓	3	
21-WP123E	5/21/92		B/W	790	✓ ✓	3	
21-EB	5/21/92		B/W	791	✓ ✓	3	
Travel Blank	5/21/92		Bennett	792	✓ ✓	2	

RELINQUISHED BY	COMPANY	RECEIVED BY	COMPANY	DATE	TIME
Dana L. Williams	SRM	Brenda Wright	ALT	5/21/92	4:35
RELINQUISHED BY	COMPANY	RECEIVED BY	COMPANY	DATE	TIME
RELINQUISHED BY	COMPANY	RECEIVED BY	COMPANY	DATE	TIME

TOTAL NUMBER OF CONTAINERS: 35

SHIPMENT METHOD: Hand deliver

REMARKS:
Stored on ice
FAX results

SPECIAL SHIPMENT, HANDLING OR STORAGE REQUIREMENTS:

APPENDIX C

TABLE C-1
PCE LEVELS FROM WESTPARK AREA MONITORING WELLS
PCE levels - ppb

DATE\ID	WP1	WP2	WP3	9	11	16	18	19	20	^20R	21	EB
Oct. 89	1100	500 d800	2400	1000	15.6	183	190	1.5	9.5	-	+3.2	
April 90	379	**	1260	1090	3.6 d4.0	#176	74.9	1.1	22.5	-	44.9	<1.0
July 90	290	s320	+400 s820	763	5.9	109	145 d205	<1.0	N/S	-	30.8	<1.0
Oct. 90	660	780	1220	*850 *d980	5.1	50	170	<0.5	N/S	^50	17.2	<0.5
Feb.91	726 s428	817 s345	1110 s963	1040	2.6	13.2	81.5 d78.6	<0.5	N/S	9.9	50.7	<0.5
May 91	290	**	1090	910	4.8	39	50	<0.5	N/S	1.8	134	<0.5
Aug. 91	660	450	730	960	7.5	116	71	<0.5	N/S	0.6	48 @d34	<0.5
Nov. 91	654	620	409	714	5.6	79.2	30.2 d30.2	<0.5	N/S	1.8	39.7	<0.5
Feb. 92	340	350	520	360 d340	***	113	31.5	***	N/S	***	85	<0.5
May 92	580	600	860	190	***	100	17	***	N/S	***	310 d380	<0.5

SYMBOL DEFINITIONS ARE LOCATED ON FOLLOWING PAGE

SYMBOL DEFINITIONS FOR MONITORING WELLS PCE LEVELS TABLE

Notes:
* = QA/QC Flagged data - See Annual Data Validation Report - Held 4 days over the holding time criteria of 14 days
** = Not required in Consent Order
*** = Conditionally dropped from quarterly sampling program; will be sampled annually
# = The Apr-90 values for wells 21 and 16 were reversed from those previously reported due to an apparent field error
+ = Results are inconsistent with the trends of this well. Lab or sampling error is likely
^ = Well #20 has been decommissioned; Replacement well is #20R located approximately 30 yards north of well #20
d = Duplicate sample
s = Sampled at stripper
N/S = Not sampled
@ = Well #21 duplicate was outside the target RPD range of +/- 20%. Data not recommended for rejection

WELLPCE.WQ1

FIGURE C-1

PCE Concentrations - WP 1,2,3 (ppb)

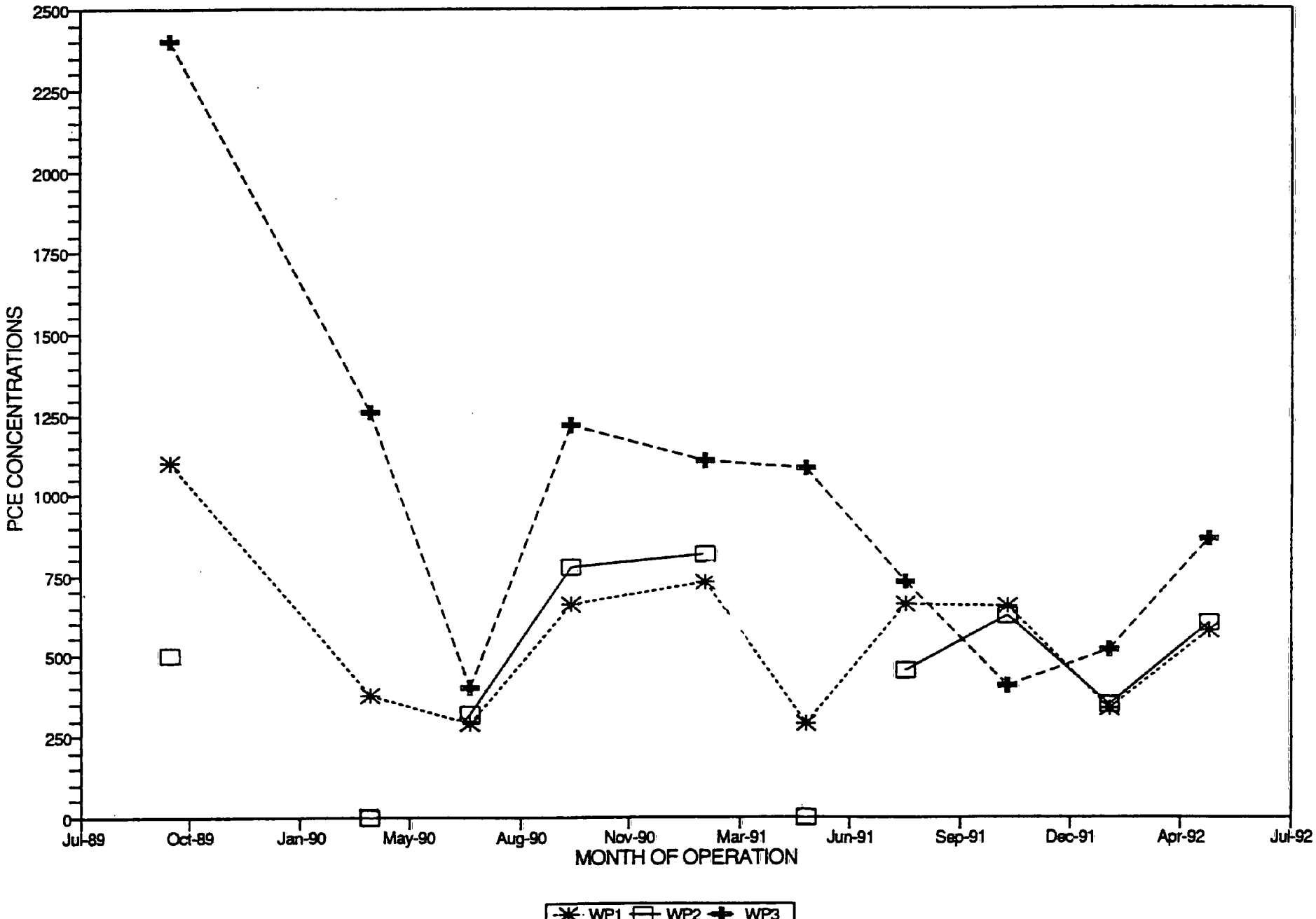


Table C-2
Groundwater Elevations
Westpark Boise Towne Plaza
Boise, Idaho

		Date:	6-Dec-90	4-Feb-91	15-May-91	7-Aug-91	10-Sep-91	14-Nov-91
Monitoring Well ID:	HR1	Depth to Groundwater:	13.91	14.53	13.08	11.03	10.63	12.22
Reference Elevation:	2693.02	Groundwater Elevation:	2679.11	2678.49	2679.94	2681.99	2682.39	2680.80
						**		
Monitoring Well ID:	WP1	Depth to Groundwater:	14.63	15.09	14.82	12.00	11.90	15.45
Reference Elevation:	2690.15	Groundwater Elevation:	2675.52	2675.06	2675.33	2678.15	2678.25	2674.70
					*			
Monitoring Well ID:	WP2	Depth to Groundwater:	15.55	19.29	19.25	17.72	18.30	17.52
Reference Elevation:	2689.64	Groundwater Elevation:	2674.09	2670.35	2670.39	2671.92	2671.34	2672.12
					*			
Monitoring Well ID:	WP3	Depth to Groundwater:	16.09	16.91	15.46	13.35	13.72	16.83
Reference Elevation:	2690.22	Groundwater Elevation:	2674.13	2673.31	2674.76	2676.87	2676.50	2673.39
					*	**		
Monitoring Well ID:	3	Depth to Groundwater:	12.55	13.33	12.10	9.98	9.56	13.03
Reference Elevation:	2691.80	Groundwater Elevation:	2679.25	2678.47	2679.70	2681.82	2682.24	2678.77
						**	**	
Monitoring Well ID:	9	Depth to Groundwater:	12.89	13.51	12.35	10.82	10.60	13.47
Reference Elevation:	2691.80	Groundwater Elevation:	2678.91	2678.29	2679.45	2680.98	2681.20	2678.33
					*			
Monitoring Well ID:	10	Depth to Groundwater:	11.04	11.97	10.26	8.85	8.52	13.10
Reference Elevation:	2688.40	Groundwater Elevation:	2677.36	2676.43	2678.14	2679.55	2679.88	2675.30
						**	**	
Monitoring Well ID:	11	Depth to Groundwater:	13.11	13.93	13.78	11.70	11.38	14.52
Reference Elevation:	2694.52	Groundwater Elevation:	2681.41	2680.59	2680.74	2682.82	2683.14	2680.00
Monitoring Well ID:	14	Depth to Groundwater:	NA	13.31	NA	10.98	NA	13.58
Reference Elevation:	2691.44	Groundwater Elevation:	NA	2678.13	NA	2680.46	NA	2677.86
Monitoring Well ID:	16	Depth to Groundwater:	12.98	13.69	12.89	10.98	10.43	14.14
Reference Elevation:	2691.58	Groundwater Elevation:	2678.60	2677.89	2678.69	2680.60	2681.15	2677.44
Monitoring Well ID:	18	Depth to Groundwater:	13.73	14.48	14.00	12.14	11.60	15.47
Reference Elevation:	2694.99	Groundwater Elevation:	2681.26	2680.51	2680.99	2682.85	2683.39	2679.52
								***

Table C-2
Groundwater Elevations
Westpark Boise Towne Plaza
Boise, Idaho

		Date:	6-Dec-90	4-Feb-91	15-May-91	7-Aug-91	10-Sep-91	14-Nov-91
Monitoring Well ID:	19	Depth to Groundwater:	10.17	10.83	9.51	7.75	7.44	11.28
Reference Elevation:	2688.42	Groundwater Elevation:	2678.25	2677.59	2678.91	2680.67	2680.98	2677.14
Monitoring Well ID:	20R	Depth to Groundwater:	10.93	11.55	10.79	9.05	NA	11.97
Reference Elevation:	2689.79	Groundwater Elevation:	2678.86	2678.24	2679.00	2680.74	NA	2677.82
Monitoring Well ID:	21	Depth to Groundwater:	NA	13.06	12.24	10.25	9.80	13.40
Reference Elevation:	2392.26	Groundwater Elevation:	NA	2379.20	2380.02	2382.01	2382.46	2378.86
Monitoring Well ID:	22	Depth to Groundwater:	NA	13.06	12.24	10.25	9.80	13.40
Reference Elevation:	2697.86	Groundwater Elevation:	NA	2684.80	2685.62	2687.61	2688.06	2684.46
Monitoring Well ID:	23	Depth to Groundwater:	NA	NA	NA	NA	NA	NA
Reference Elevation:	2701.10	Groundwater Elevation:	NA	NA	NA	NA	NA	NA
Monitoring Well ID:	DEQ-WP1	Depth to Groundwater:	NA	NA	NA	NA	11.68	14.06
Reference Elevation:	2692.27	Groundwater Elevation:	NA	NA	NA	NA	2680.59	2678.21
Monitoring Well ID:	DEQ-WP2	Depth to Groundwater:	NA	NA	NA	NA	13.21	16.66
Reference Elevation:	2699.14	Groundwater Elevation:	NA	NA	NA	NA	2685.93	2682.48
Monitoring Well ID:	DEQ-WP3	Depth to Groundwater:	NA	NA	NA	NA	14.59	16.90
Reference Elevation:	2700.82	Groundwater Elevation:	NA	NA	NA	NA	2686.23	2683.92
Monitoring Well ID:	DEQ-WP4	Depth to Groundwater:	NA	NA	NA	NA	18.29	20.21
Reference Elevation:	2704.02	Groundwater Elevation:	NA	NA	NA	NA	2685.73	2683.81
Monitoring Well ID:	MW-1	Depth to Groundwater:	NA	NA	NA	NA	NA	10.99
Reference Elevation:	2689.49	Groundwater Elevation:	NA	NA	NA	NA	NA	2678.50
Monitoring Well ID:	MW-6	Depth to Groundwater:	NA	NA	NA	NA	NA	12.74
Reference Elevation:	2690.86	Groundwater Elevation:	NA	NA	NA	NA	NA	2678.12

Table C-2
Groundwater Elevations
Westpark Boise Towne Plaza
Boise, Idaho

		Date:	6-Dec-90	4-Feb-91	15-May-91	7-Aug-91	10-Sep-91	14-Nov-91
Monitoring Well ID:	MW-7	Depth to Groundwater:	NA	NA	NA	NA	NA	11.00
Reference Elevation:	2688.88	Groundwater Elevation:	NA	NA	NA	NA	NA	2677.88
Monitoring Well ID:	MW-8	Depth to Groundwater:	NA	NA	NA	NA	NA	12.19
Reference Elevation:	2690.21	Groundwater Elevation:	NA	NA	NA	NA	NA	2678.02
Monitoring Well ID:	MW-9	Depth to Groundwater:	NA	NA	NA	NA	NA	12.80
Reference Elevation:	2690.64	Groundwater Elevation:	NA	NA	NA	NA	NA	2677.84
Monitoring Well ID:	MW-10	Depth to Groundwater:	NA	NA	NA	NA	NA	NA
Reference Elevation:	2688.63	Groundwater Elevation:	NA	NA	NA	NA	NA	NA
Monitoring Well ID:	MW-11	Depth to Groundwater:	NA	NA	NA	NA	NA	11.54
Reference Elevation:	2689.91	Groundwater Elevation:	NA	NA	NA	NA	NA	2678.37

Table C-2
Groundwater Elevations
Westpark Boise Towne Plaza
Boise, Idaho

			Date:	22-Jan-92	26-Feb-92	21-May-92
Monitoring Well ID:	HR1	Depth to Groundwater:		NA	16.04	13.44
Reference Elevation:	2693.24	Groundwater Elevation:		NA	2677.20	2679.80
Monitoring Well ID:	WP1	Depth to Groundwater:		17.42	18.62	17.68
Reference Elevation:	2690.15	Groundwater Elevation:		2672.73	2671.53	2672.47
Monitoring Well ID:	WP2	Depth to Groundwater:		22.55	20.30	21.10
Reference Elevation:	2690.16	Groundwater Elevation:		2667.61	2669.86	2669.06
Monitoring Well ID:	WP3	Depth to Groundwater:		18.40	18.98	16.56
Reference Elevation:	2690.71	Groundwater Elevation:		2672.31	2671.73	2674.15
Monitoring Well ID:	3	Depth to Groundwater:		NA	14.80	12.50
Reference Elevation:	2692.10	Groundwater Elevation:		NA	2677.30	2679.60
Monitoring Well ID:	9	Depth to Groundwater:		14.39	17.74	12.73
Reference Elevation:	2691.19	Groundwater Elevation:		2676.80	2673.45	2678.46
Monitoring Well ID:	10	Depth to Groundwater:		NA	14.58	10.56
Reference Elevation:	2688.88	Groundwater Elevation:		NA	2674.30	2678.32
Monitoring Well ID:	11	Depth to Groundwater:		15.07	16.35	14.38
Reference Elevation:	2695.22	Groundwater Elevation:		2680.15	2678.87	2680.84
				****		
Monitoring Well ID:	14	Depth to Groundwater:		14.25	14.62	12.94
Reference Elevation:	2692.00	Groundwater Elevation:		2677.75	2677.38	2679.06
				****		
Monitoring Well ID:	16	Depth to Groundwater:		NA	15.14	13.32
Reference Elevation:	2692.79	Groundwater Elevation:		NA	2677.65	2679.47
Monitoring Well ID:	18	Depth to Groundwater:		15.57	17.18	14.54
Reference Elevation:	2694.60	Groundwater Elevation:		2679.03	2677.42	2680.06
				****		

Table C-2
Groundwater Elevations
Westpark Boise Towne Plaza
Boise, Idaho

			Date:	22-Jan-92	26-Feb-92	21-May-92
Monitoring Well ID:	19	Depth to Groundwater:		11.78	12.88	9.88
Reference Elevation:	2688.73	Groundwater Elevation:		2676.95	2675.85	2678.85
Monitoring Well ID:	20R	Depth to Groundwater:		NA	13.42	11.20
Reference Elevation:	2690.32	Groundwater Elevation:		NA	2676.90	2679.12
Monitoring Well ID:	21	Depth to Groundwater:		NA	14.50	12.70
Reference Elevation:	2692.16	Groundwater Elevation:		NA	2677.66	2679.46
Monitoring Well ID:	22	Depth to Groundwater:		13.40	13.40	16.80
Reference Elevation:	2697.86	Groundwater Elevation:		2684.46	2684.46	2681.06
Monitoring Well ID:	23	Depth to Groundwater:		19.33	19.83	19.26
Reference Elevation:	2701.10	Groundwater Elevation:		2681.77	2681.27	2681.84
				**		
Monitoring Well ID:	DEQ-WP1	Depth to Groundwater:		NA	15.88	15.33
Reference Elevation:	2697.27	Groundwater Elevation:		NA	2681.39	2681.94
Monitoring Well ID:	DEQ-WP2	Depth to Groundwater:		NA	NA	17.25
Reference Elevation:	2699.14	Groundwater Elevation:		NA	NA	2681.89
Monitoring Well ID:	DEQ-WP3	Depth to Groundwater:		NA	NA	18.36
Reference Elevation:	2700.82	Groundwater Elevation:		NA	NA	2682.46
Monitoring Well ID:	DEQ-WP4	Depth to Groundwater:		21.36	NA	21.64
Reference Elevation:	2704.02	Groundwater Elevation:		2682.66	NA	2682.38
Monitoring Well ID:	MW-1	Depth to Groundwater:		NA	NA	NA
Reference Elevation:	2689.49	Groundwater Elevation:		NA	NA	NA
Monitoring Well ID:	MW-6	Depth to Groundwater:		NA	NA	NA
Reference Elevation:	2690.86	Groundwater Elevation:		NA	NA	NA

Table C-2
Groundwater Elevations
Westpark Boise Towne Plaza
Boise, Idaho

		Date:	22-Jan-92	26-Feb-92	21-May-92
Monitoring Well ID:	MW-7	Depth to Groundwater:	NA	12.80	10.24
Reference Elevation:	2688.88	Groundwater Elevation:	NA	2676.08	2678.64
Monitoring Well ID:	MW-8	Depth to Groundwater:	NA	NA	NA
Reference Elevation:	2690.21	Groundwater Elevation:	NA	NA	NA
Monitoring Well ID:	MW-9	Depth to Groundwater:	NA	NA	NA
Reference Elevation:	2690.64	Groundwater Elevation:	NA	NA	NA
Monitoring Well ID:	MW-10	Depth to Groundwater:	NA	12.04	10.18
Reference Elevation:	2688.63	Groundwater Elevation:	NA	2676.59	2678.45
Monitoring Well ID:	MW-11	Depth to Groundwater:	NA	NA	NA
Reference Elevation:	2689.91	Groundwater Elevation:	NA	NA	NA

Table C-2
Groundwater Elevations
Westpark Boise Towne Plaza
Boise, Idaho

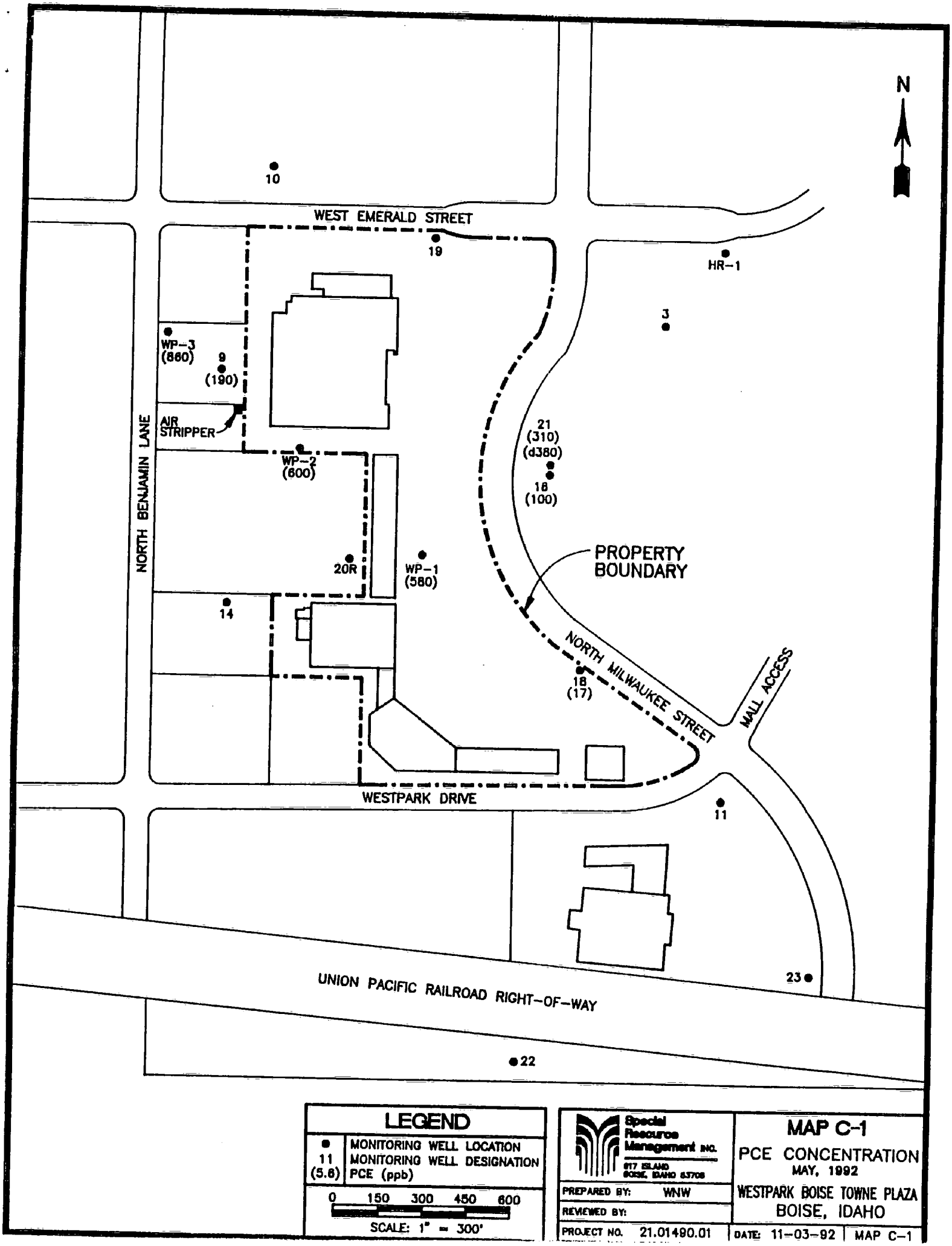
Notes: Reference point elevations re-surveyed 22-Jan-92

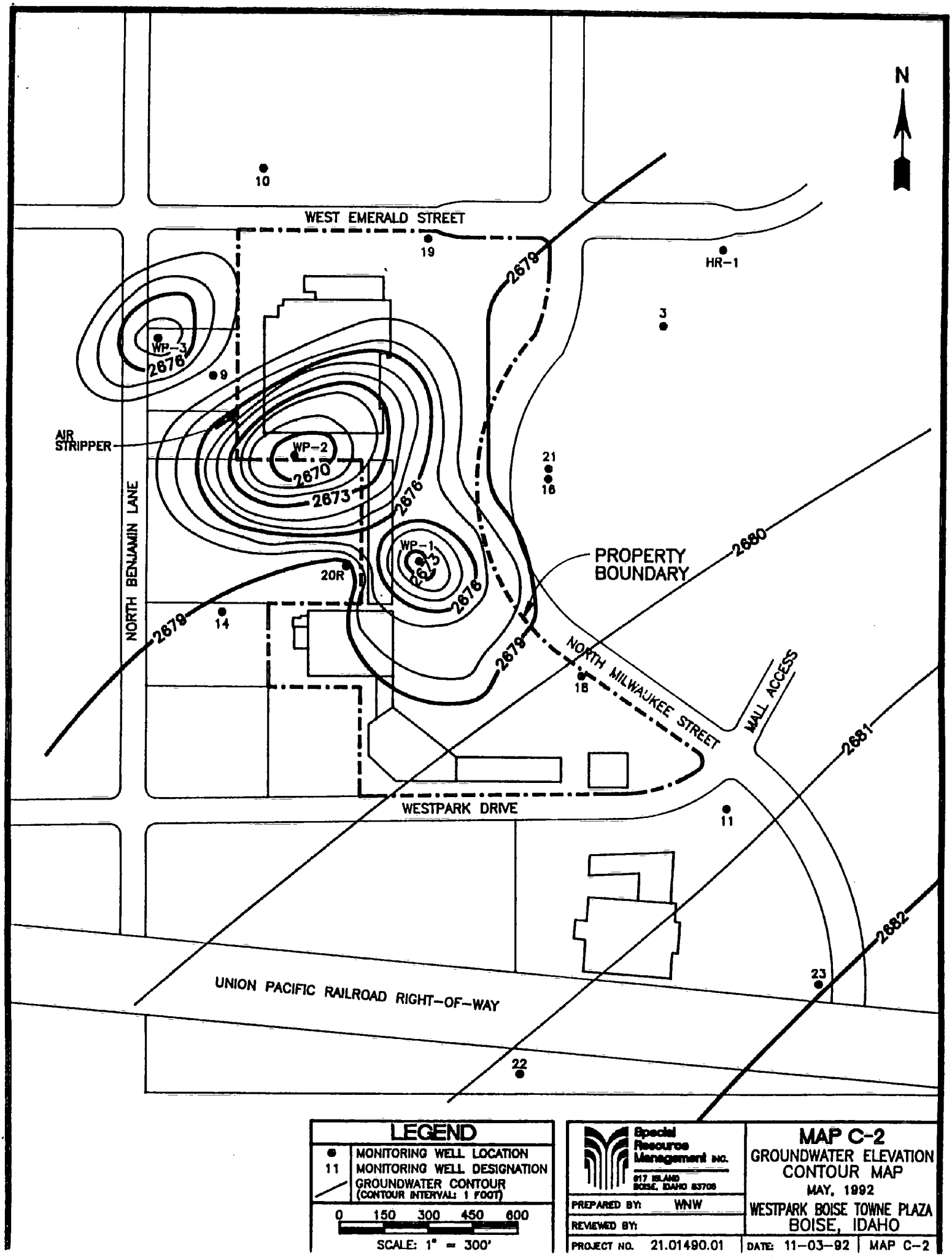
* Measured on 16-May-91

** Measured on 8-Aug-91

*** Measured on 15-Nov-91

**** Measured on 23-Jan-92


N
10
WEST EMERALD STREET
19
HR-1
3
WP-3
(860)
9
(190)
AIR
STRIPPER
NORTH BENJAMIN LANE
WP-2
(600)
21
(310)
(d380)
18
(100)
PROPERTY
BOUNDARY
20R
WP-1
(580)
14
NORTH MILWAUKEE STREET
MALL ACCESS
18
(17)
WESTPARK DRIVE
11
UNION PACIFIC RAILROAD RIGHT-OF-WAY
23
22
LEGEND
11
(5.6)
MONITORING WELL LOCATION
MONITORING WELL DESIGNATION
PCE (ppb)
0 150 300 450 600
SCALE: 1" = 300'
Special Resource Management INC.
617 ISLAND
BOISE, IDAHO 83706
PREPARED BY: WNW
REVIEWED BY:
PROJECT NO. 21.01490.01
DATE: 11-03-92
MAP C-1
MAP C-1
PCE CONCENTRATION
MAY, 1992
WESTPARK BOISE TOWNE PLAZA
BOISE, IDAHO



LEGEND

- ● MONITORING WELL LOCATION
- 11 MONITORING WELL DESIGNATION
- GROUNDWATER CONTOUR (CONTOUR INTERVAL: 1 FOOT)

0 150 300 450 600

SCALE: 1" = 300'

Special Resource Management INC.
617 IDAHO
BOISE, IDAHO 83706

PREPARED BY: WNW
REVIEWED BY:
PROJECT NO. 21.01490.01

MAP C-2
GROUNDWATER ELEVATION CONTOUR MAP
MAY, 1992
WESTPARK BOISE TOWNE PLAZA
BOISE, IDAHO

DATE: 11-03-92 | MAP C-2

APPENDIX D

TABLE D-1
WELL WP1 - FLOW RATES AND PCE LEVELS
(Sample Events Only)

DATE	DAY OF OPERATION	FLOW RATE gpm	PCE ppb	PCE ppm	PCE pph
*WP1 not running. Samples taken from the well and not the stripper influent site - PCE pph can not be determined.					
03/15/90	4	69	800	0.800	0.0272
03/16/90	5	68	920	0.920	0.0309
03/17/90	6	68	980	0.980	0.0329
03/23/90	12	60	585	0.585	0.0173
03/30/90	19	58	876	0.876	0.0251
04/06/90	26	60	285	0.285	0.0084
04/13/90	33	62	212	0.212	0.0065
04/20/90	40	90	239	0.239	0.0106
04/25/90	45	81	300	0.300	0.0120
04/27/90	47	80	408	0.408	0.0161
07/20/90	131	0	290	0.290	*
10/24/90	227	0	660	0.660	*
02/06/91	333	81	726	0.726	0.0290
05/16/91	431	90	290	0.290	0.0129
08/07/91	514	89	660	0.660	0.0290
11/14/92	613	93	654	0.654	0.0300
02/26/92	717	98	340	0.340	0.0164
05/21/92	786	85	580	0.580	0.0243

TABLE D-2
WELL WP2 - FLOW RATES AND PCE LEVELS
(Sample Events Only)

DATE	DAY OF OPERATION	FLOW RATE gpm	PCE ppb	PCE ppm	PCE pph
*WP2 Flow rate not taken - PCE pph cannot be determined.					
**Not Required in Consent Order					
03/13/90	2	103	850	0.8500	0.0432
03/14/90	3	101	1080	1.0800	0.0538
03/15/90	4	103	1000	1.0000	0.0508
03/16/90	5	101	924	0.9240	0.0460
03/17/90	6	102	890	0.8900	0.0448
03/23/90	12	100	803	0.8030	0.0396
03/30/90	19	100	602	0.6020	0.0297
04/06/90	26	97	146	0.1460	0.0070
04/13/90	33	95	44	0.0440	0.0021
04/20/90	40	106	185	0.1850	0.0097
04/25/90	45	100	240	0.2400	0.0118
04/27/90	47	100	346	0.3460	0.0171
06/22/90	103	130	330	0.3300	0.0212
07/20/90	131	132	320	0.3200	0.0208
10/18/90	221	0	780	0.7800	*
02/06/91	333	111	817	0.8170	0.0447
05/16/91	431	93	**	0.0000	0.0000
08/07/91	514	96	450	0.4500	0.0213
11/14/91	613	89	620	0.6200	0.0272
02/26/92	717	56	350	0.3500	0.0097
05/21/92	786	90	600	0.6000	0.0266

TABLE D-3
WELL WP3 - FLOW RATES AND PCE LEVELS
(Sample Events Only)

DATE	DAY OF OPERATION	FLOW RATE gpm	PCE ppb	PCE ppm	PCE pph
*WP3 Flow rate not taken - PCE pph cannot be determined.					
03/14/90	3	63	1700	1.7000	0.0528
04/25/90	45	52	1040	1.0400	0.0267
04/27/90	47	51	1210	1.2100	0.0304
05/03/90	53	0	1050	1.0500	*
07/20/90	131	32	820	0.8200	0.0129
10/18/90	221	0	1220	1.2200	*
02/06/90	333	78	1111	1.1110	0.0428
05/16/91	431	86	1090	1.0900	0.0463
08/07/91	514	80	730	0.7300	0.0288
11/14/91	613	78	409	0.4090	0.0157
02/26/92	717	91	520	0.5200	0.0233
05/21/92	786	75	860	0.8600	0.0318

TABLE D-4
WELLS WP1,2,3 - INLUENT
FLOW RATES AND PCE LEVELS
(Quarterly Sample Events Only)

DATE	DAY OF OPERATION	FLOW RATE gpm	PCE ppb	PCE ppm	PCE pph
*All flow rates from this date on have been adjusted according to the effluent meter. This gauge provides a more accurate flow rate.					
04/13/90	33	157	308	0.3080	0.0239
07/20/90	131	164	590	0.5900	0.0477
10/24/90	227	0	-	-	-
*02/06/91	*332	*270	*765	*0.7650	*0.1019
05/16/91	431	269	430	0.4300	0.0571
08/07/91	514	265	640	0.6400	0.0837
11/14/91	613	260	474	0.4740	0.0608
02/26/92	717	245	410	0.4100	0.0496
05/21/92	786	250	420	0.4200	0.0518

TABLE D-5
WELLS WP1,2,3 - EFFLUENT
FLOW RATES AND PCE LEVELS
(Quarterly Sample Events Only)

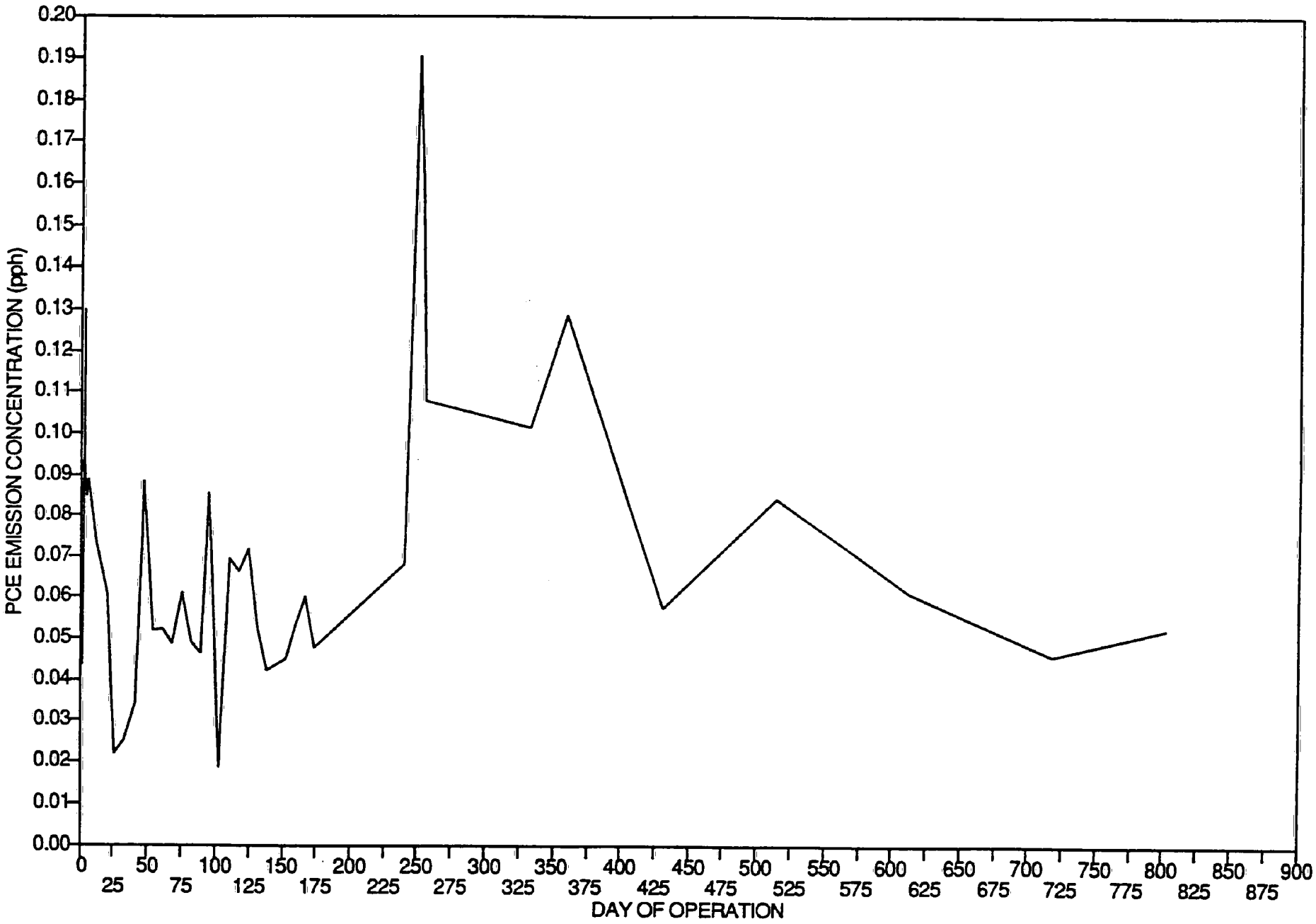
DATE	DAY OF OPERATION	FLOW RATE gpm	PCE ppb	PCE ppm	PCE pph
*All flow rates from this date on have been adjusted according to the effluent meter. This gauge provides a more accurate flow rate.					
^Attempts to phase in WP3.					
04/13/90	33	168	7.2	0.0072	0.0006
07/20/90	131	180	^8.2	0.0082	0.0007
10/24/90	227	133	3.6	0.0036	0.0002
*02/06/91	*332	*270	*14.8	*0.0148	*0.0020
03/05/91	359	266	4.3	0.0043	0.0006
05/16/91	431	268	3.4	0.0034	0.0004
08/07/91	514	265	4.7	0.0047	0.0006
11/14/91	613	260	3.3	0.0033	0.0004
02/26/92	717	245	2.5	0.0025	0.0003
05/21/92	786	250	3.7	0.0037	0.0005

APPENDIX E

TABLE E-1
PCE AIR EMISSIONS (PPM AND PPH)

DATE	DAY OF OPERATION	FLOW RATE EFFLUENT gpm	PCE INFLUENT ppm	PCE EFFLUENT ppm	EMISSION SOURCE STRENGTH g/sec	PCE EMISSION ppm	PCE EMISSIONS pph
# March 1991 re-sample result - The influent value is an average of PCE concentration for the Fourth Quarter.							
02/06/91	332	270	0.7650	0.0148	0.0128	0.4896	0.1014
#03/05/91	359	266	0.9700	0.0043	0.0162	0.6209	0.1285
05/15/91	431	269	0.4300	0.0034	0.0072	0.2774	0.0574
08/07/91	514	265	0.6400	0.0047	0.0106	0.4069	0.0842
11/14/91	613	260	0.4740	0.0033	0.0077	0.2958	0.0612
02/26/92	717	225	0.4100	0.0027	0.0058	0.2215	0.0459
05/21/92	802	250	0.4200	0.0017	0.0066	0.2528	0.0523

FIGURE E-1
PCE AIR EMISSIONS



APPENDIX F

TABLE F-1
WEEKLY WELL FLOW RATES - WP1, WP2, WP3, AND COMBINED INFLUENT/EFFLUENT (GPM)

DATE	WEEK OF OPERATION	WP1	WP2	WP3	COMBINED INF/EFF
01/07/91	44	0	0	0	0
01/14/91	45	0	0	0	0
01/21/91	46	81	115	79	275
01/29/91	47	78	116	76	270
02/07/91	48	81	111	78	270
02/15/91	49	0	110	94	204
02/22/91	50	75	118	75	268
03/07/91	52	85	97	85	267
03/15/91	53	88	96	82	266
03/21/91	54	90	96	84	270
03/28/91	55	92	96	82	270
04/05/91	56	89	96	85	270
04/11/91	57	90	97	88	275
04/18/91	58	88	94	85	267
04/25/91	59	91	94	87	272
05/02/91	60	93	94	86	273
05/09/91	61	88	95	87	270
05/15/91	62	90	93	86	269
05/21/91	63	92	95	87	274
05/30/91	64	91	94	85	270
06/07/91	65	0	0	0	0
06/12/91	66	88	99	83	270
06/19/91	67	90	98	80	268
06/26/91	68	89	97	82	268
07/11/91	70	88	99	83	270
07/18/91	71	88	96	82	266
07/26/91	72	90	95	80	265
07/31/91	73	0	0	0	0
08/07/91	74	89	96	80	265
08/16/91	75	91	94	80	265
08/21/91	76	92	97	81	270
08/29/91	77	86	96	83	265
09/06/91	78	90	95	80	265
09/13/91	79	89	94	82	265
09/17/91	80	91	96	83	270

TABLE F-1 (continued)
WEEKLY WELL FLOW RATES - WP1, WP2, WP3, AND COMBINED INFLUENT/EFFLUENT (GPM)

DATE	WEEK OF OPERATION	WP1	WP2	WP3	COMBINED INF/EFF
09/26/91	81	92	96	77	265
10/05/91	82	88	92	80	260
10/10/91	83	91	91	78	260
10/18/91	84	95	95	80	270
10/25/91	85	92	93	80	265
10/31/91	86	89	91	80	260
11/07/91	87	88	90	82	260
11/14/91	88	93	89	78	260
11/22/91	89	93	90	82	265
11/26/91	90	0	0	0	0
12/04/91	91	94	95	81	270
12/19/91	93	91	81	73	245
12/30/91	95	100	58	92	250
01/09/92	96	100	55	95	250
01/17/92	97	100	58	92	250
01/24/92	98	98	60	92	250
01/29/92	99	99	59	97	255
02/05/92	100	102	56	97	255
02/14/92	101	102	56	97	255
02/26/92	103	98	56	91	245
03/09/92	105	94	54	87	235
03/16/92	106	83	56	86	225
04/06/92	109	90	46	84	220
04/10/92	109	88	47	90	225
04/22/92	111	74	81	70	225
05/11/92	114	78	83	69	230
05/21/92	115	85	90	75	250

TABLE F-2
QUARTERLY RESULTS FOR WELLS WP1, WP2, WP3, INFLUENT, AND EFFLUENT
PCE & TCE Concentrations- ppb

		STRIPPER INFLUENT												STRIPPER EFFLUENT		
		WP1			WP2			WP3			Combined					
DATE	ADJUST	gpm	PCE	TCE	gpm	PCE	TCE	gpm	PCE	TCE	gpm	PCE	TCE	gpm	PCE	TCE
04/13/90	No	62	212	-	95	44	-	0	-	-	157	308	-	168	7.2	<1.0
07/20/90	No	0	-	-	132	320	-	*32	*820	-	164	*590	-	180	*8.2	-
10/18/90	No	0	-	-	133	490	-	0	1290	-	133	-	-	-	-	-
10/24/90	Yes	0	660	-	0	-	-	0	-	-	133	-	-	109	3.6	-
#2/06/91	Yes	81	428	1.6	111	345	1.4	78	963	4.2	270	765	3.2	270	14.8	<0.5
03/05/91	Yes	85	-	-	96	-	-	85	-	-	266	-	-	266	4.3	-
05/16/91	No	90	290	1.9	93	-	-	86	1090	6.4	269	430	2.5	269	3.4	-
08/08/91	No	89	660	3.2	96	450	3	80	730	1.1	265	640	3.3	265	4.7	<0.5
11/14/91	Yes	93	654	4.1	89	620	5.1	78	409	2.9	260	474	2.6	260	3.3	<0.5
02/26/92	No	90	340	1.6	52	350	2.2	83	520	3.8	225	410	2.7	225	2.5	<0.5
05/21/92	No	85	580	2.3	90	600	2.4	75	860	3.8	250	420	1.7	250	3.7	<0.5

* = Attempts to phase in well WP3
- = Not collected or not analyzed
= All flow rates from this date on have been adjusted according to the effluent meter.

DW/123IEQT.WQ1